

The Tracking Meteogram, an AWIPS II Tool for Time-Series Analysis

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ABSTRACT

A new tool has been developed for the National Weather Service (NWS) Advanced Weather Interactive Processing System (AWIPS) II through collaboration between NASA's Short-term Prediction Research and Transition (SPoRT) and the NWS Meteorological Development Laboratory (MDL). Referred to as the "Tracking Meteogram", the tool aids NWS forecasters in assessing meteorological parameters associated with moving phenomena. The tool aids forecasters in severe weather situations by providing valuable satellite and radar derived trends such as cloud top cooling rates, radial velocity couplets, reflectivity, and information from ground-based lightning networks. The Tracking Meteogram tool also aids in synoptic and mesoscale analysis by tracking parameters such as the deepening of surface low pressure systems, changes in surface or upper air temperature, and other properties. The tool provides a valuable new functionality and demonstrates the flexibility and extensibility of the NWS AWIPS II architecture. In 2014, the operational impact of the tool was formally evaluated through participation in the NOAA/NWS Operations Proving Ground (OPG), a risk reduction activity to assess performance and operational impact of new forecasting concepts, tools, and applications. Performance of the Tracking Meteogram Tool during the OPG assessment confirmed that it will be a valuable asset to the operational forecasters. This presentation reviews development of the Tracking Meteogram tool, performance and feedback acquired during the OPG activity, and future goals for continued support and extension to other application areas.